

Solar flares accelerate both ions and electrons to high energies, and their X-ray and gamma-ray signatures not only probe the relationship between their respective acceleration, but also allow for the measurement of accelerated and ambient abundances. *RHESSI* observations have shown a striking close linear correlation of gamma-ray line fluence from accelerated ions $>\sim 20$ MeV and bremsstrahlung emission from relativistic accelerated electrons >300 keV, when integrated over complete flares, suggesting a common acceleration mechanism. *SMM/GRS* observations, however, show a weaker correlation, and this discrepancy might be associated with previously observed electron-rich episodes within flares and/or temporal variability of gamma-ray line fluxes over the course of flares. We use the latest *RHESSI* gamma-ray analysis techniques to study the temporal behavior of the *RHESSI* flares, and determine what changes can be attributed to an evolving acceleration mechanism or to evolving abundances.